DOCUMENT RESUME

ED 051 430 VT 013 441

AUTHOR Evans, Rupert N.
TITLE School for Schooling's Sake. The Current Role of the Secondary School in Occupational Preparation.
INSTITUTION Illinois Univ., Champaign.
PUB DATE 4 Jun 68
NOTE 27p.

EDRS PRICE EDRS Price MF-$0.65 HC-$3.29
DESCRIPTORS Career Planning, College Preparation, Cooperative Education, *Educational Change, *Educational Needs, Educational Objectives, Noncollege Preparatory Students, Obsolescence, *School Attitudes, *Secondary Schools, *Vocational Education

ABSTRACT

For a large portion of its student body, the school makes no conscious effort to prepare for the transition from school to employment. Instead, the school concentrates on preparing students for more school. About 20 percent of high school students receive some form of vocational education, but under pressure from the Congress, schools are beginning to recognize that they should meet the needs of a higher proportion of their students. Vocational education is devoting more attention now than formerly to the needs of the student and is placing less emphasis on meeting the narrow needs of the labor market. Although vocational education is criticized for being too narrow and specialized, this is rarely true. However, the principal method of evaluation of vocational education (immediate job placement) places a premium on specialization. The major weakness of vocational education content lies in its exclusion of many important occupations. There are several types of obsolescence of vocational education, some of which are much more serious than others. The part-time cooperative method of instruction, broadened teacher education, in-school employment offices, and better instructional materials are means of minimizing obsolescence. (Author)

ED051430

U.S. DEPARTMENT OF HEALTH,
EDUCATION & WELFARE
OFFICE OF EDUCATION
THIS DOCUMENT HAS BEEN REPRODUCED EXACTLY AS RECEIVED FROM THE PERSON OR ORGANIZATION ORIGINATING IT. POINTS OF VIEW OR OPINIONS STATED DO NOT NECESSARILY REPRESENT OFFICIAL OFFICE OF EDUCATION POSITION OR POLICY.

(21)

SCHOOL FOR SCHOOLING'S SAKE

The Current Role of the Secondary School In Occupational Preparation

Rupert N. Evans
University of Illinois
June 4, 1968

VT013441

Table of Contents

	Page
Introduction	1
A View of School in the United States	3
Vocational Values in Non-Vocational Subjects	6
The Practical Arts	8
Vocational Education in the Public Schools	9
Specialization in Vocational Education	11
Methods of Instruction	14
Work-Education Programs	15
Relationships with the Community	17
Obsolescence	18
Placement Programs in the School	20
Curriculum Materials for Vocational Education	21
What Happens to the Student as a Result of High School Level Vocational Education?	22
Why Are So Few School Activities Related to the Transition from School to Employment?	23
Abstract	24

SCHOOL FOR SCHOOLING'S SAKE

The Current Role of the Secondary School in Occupational Preparation

Rupert N. Evans

University of Illinois

American education is designed for one basic purpose--to prepare the student for subsequent schooling. Actual practice in elementary schools, secondary schools, junior colleges, and baccalaureate programs shows far too little recognition of the role of the school in preparing students for citizenship and for employment. Only at the graduate school level are employability skills given careful attention by the majority of instructors, and anyone who drops out of the educational stream prior to graduate school is regarded as a failure.

Intelligence tests are designed to predict success in only one undertaking--schooling. Guidance counseling is limited almost entirely to helping the student to choose and prepare for a higher level of schooling. Teachers and curricula alike are judged on the proportion of students who succeed at the next higher level of schooling.

Since 1952, a great deal of time, money, and energy has been poured into revising and updating school curricula. This has resulted in a great deal of good because outdated and inaccurate material has been discarded. One example of the many curriculum revision projects is PSSC Physics, a 10 million dollar program which changed the character of almost all of the physics taught in our secondary schools. It did not succeed, however, in reversing the long-term decrease in the proportion of students studying physics. Why, then

is it hailed as a success by our colleges? Because those few students who do complete it are better prepared for college than ever before. But what of those students who do not go to college, who do not want to go to college, and who do not need to go to college? PSSC Physics took care of them very neatly. All mention of technology or of the application of physics to technology was carefully and deliberately removed. To have left it in would have resulted in less time for the topics that really count--those which are needed for success in college.

In the decade from 1952 to 1962, the technological aspects of physics were not the only casualties. Many other practical phases of general education were starved out or cut out of the school programs. Industrial arts, home economics, physical education, and driver education became dirty words. Indeed, the principal reason that they and vocational education were not cast out entirely was because the teacher tenure laws were so rigid that their teachers could not easily be fired.

The Federal Government aided and abetted these changes by proposing the elimination of Federal funds for vocational education, and by carefully excluding all of the above subjects from the National Defense Education Act. (Social sciences, music, art, and Latin were also casualties because no one could see how they would help us train scientists to catch up with the Russians.)

Taxpayers associations quickly got on the bandwagon because the programs which were eliminated cost more than those that were retained. Parents were happy because they felt the high schools could now guarantee success in college for their children.

And educators were easy to sell. Most of them had never thought of existence outside a school since they had started in grade one. Preparation of everyone for further schooling was the thing they knew best, and when prestigious people said that other school activities were not worthwhile, the educators went along happily.

What sort of school resulted? --A school which became more and more efficient in preparing students for more school, but less and less efficient in meeting student needs which are not related to further formal education.

A View of School in the United States

Let us start at the beginning with early childhood education. At one time, nursery schools emphasized play and getting along in group situations. More recently we have discovered that slum children in particular could succeed much better in elementary schools if emphasis was placed also on words and numbers. Since all children need facility with words and numbers, this is probably general education and, hence, desirable. But note that the emphasis is placed on success in subsequent schooling.

There is a single basic curriculum through the elementary grades, with major emphasis on reading and arithmetic, and minor attention to science, composition, social studies, art and music. Almost everything the student learns is designed to enable him to succeed in high school. But at this level, almost all of the instruction is needed by all students, is hence general education, and hence is desirable. The principal deficiency is the fact that important areas of general education virtually are omitted. For example, the few texts where occupations are mentioned give a sterile view of policemen, firemen, and postal employees as "community helpers"; necessary perhaps, but certainly not the sort of activity which would appeal to <u>you</u>. Goods and

services are treated as if they appear by magic.

Junior high schools serve as a pre-high-school review period for those students who haven't done too well in elementary school. For the remainder of the students (possibly the majority) it consists of two or three years of interminable drill on facts and skills already mastered or a repetition of content without new meaning or challenge.

Now comes high school, the end of formal education for more than half of our youth. Here we find three basic curricula. The most prestigious of these is the college preparatory curriculum. It enrolls about half of the students. It spends very little time on general education, but unabashedly aims toward one goal, success in the type of college which leads to graduate school. (In spite of its title, the college preparatory curriculum does not prepare for terminal programs in junior college.) It is undoubtedly successful in achieving its limited goals. All carping to the contrary, the early childhood education, elementary education, junior high school education, and college preparatory education in high school have combined to prepare more people better for college than has been true at any other time or place. Unfortunately, however, this education does not meet the needs of all or even of a majority of the students who attend high school.

The vocational curriculum in high school is the one curriculum which aims at preparing students for gainful employment. It requires the student to spend at least half-time in general education. For its specialized courses it uses teachers who have had some experience in an occupation other than teaching. Its quality is uneven, ranging from superb to atrocious. But in almost all of our schools it suffers from an extremely serious shortcoming--it rejects the students who most need its help. Enrollment typically is limited to 20% of

the student body, and "naturally" it accepts the most able students who apply. More will be said about this curriculum in a later section of this paper.

The third and most inefficient of our high school programs is the general curriculum. Its students are the castoffs from the other two curricula plus those students who are not committed to college or to one of the families of occupations taught in that school's vocational curriculum. It has no goals. Its subject matter typically is watered-down content from the college preparatory curriculum. Really, the only thing which enables it to survive is its name--one naturally assumes that the word "general" in its title means general education. Actually it means "not specific--without direction". A large majority of the dropouts and unemployed youth come from the general curriculum. It is my view that the sooner we can get rid of it the better, for our students, for our teachers, and for our Nation.

The comments about the high school apply with little or no change to most junior colleges. In many junior colleges the emphasis on the college transfer program is greater and the emphasis on vocational and technical programs is less than in the high school. (Many junior college administrators really want to run four-year colleges.) The general curriculum receives less emphasis than in high schools because those who do not succeed in the other two curricula are relatively easy to push out of school.

We can stop our view of schools without explaining college, for most of you are familiar with its programs. It is enough to repeat that almost all undergraduate programs are designed to prepare for graduate school, and that colleges regularly are rated on the proportion of their students who follow this route.

Fortunately, forces are at work which are aimed at changing the schools we have just analysed. Legislators are supporting undergraduate in preference

to graduate work (often because the less intellectually gifted children of their upper-class and middle-class constituents are denied entrance to prestigious colleges). Rapidly climbing youth unemployment rates, urban unrest, and shortages of trained employees raise questions about the relationships of these problems to high school programs. A static dropout rate raises serious questions about lack of progress in improvement of school programs from junior high school through the 10th grade. However, regardless of the forces pressing for modification, changes in school programs come slowly. The schools we have just seen are still typical, and likely will be for another generation.

Vocational Values in Non-vocational Subjects

In one sense, all instruction in the schools may be said to have value for occupational purposes. Reading and speaking the English language are essential in and of themselves for success in almost every occupation in this country. Moreover, they are essential tools in learning other aspects of almost any occupation. To a lesser but still significant degree, English composition, social studies, and elementary mathematics have direct applicability to almost all occupational preparation.

Obviously, in the degree to which they are aimed at preparation for graduate work, all school subjects have applicability to preparation for the professions. But all school subjects also have potential for preparation for occupations other than the professions. Indeed, the trigonometry which schools profess to teach as a general education subject has far greater value for occupational preparation for certain metals trades than it has for general education.

If schools <u>really</u> emphasize general education instead of preparation for higher education, the occupational value of all subjects would certainly in-

crease. As it is, the occupational values in school subjects are generally so imbedded in the matrix that a great deal of skill is required to find them and extract them.

One of the most important values of vocational education, and one of the most prized skills of the good vocational teacher, is the ability to help students see the real-life values in non-vocational education. Any strong vocational instructor can give you yards of case histories about his students who have first seen the beauty of algebra in an electronics course, or the value of English in a distributive education course, or the joy of economics or biology in an agricultural education course. Most academic teachers, however, seem to abhor the idea of emphasizing the immediate practicality of what they teach.

Very recently a few schools have begun to teach general education courses in ways which emphasize the utility of these subjects for the individual and to maximize interactions among subjects so that the student may better learn these relationships. Examples of such activities include: an English theme on "What My Kuder Preference Score Means"; a lecture and discussion in a music class on "Working Conditions for the Musician"; and a trigonometry examination on the sine bar.

These examples seem so logical that you may wonder why they are not used universally. A trite, but usually accurate answer is that teachers tend to teach the way they are taught, and our colleges tend not to emphasize utility in undergraduate instruction.

Ideally, entry-level job skills could be provided directly by each of the general education subjects. Not only would this provide motivation for learning for many students, but also evaluation of instruction could be considerably improved.

The Practical Arts

One phase of general education has claimed to maintain its contact with life outside the school. The most frequently offered of these so-called practical arts subjects are: industrial arts (shop or manual training), home making (home economics or domestic science), business education (especially typing), and driver education. The first two of these begin in the junior high school or even earlier, and often are required of all boys and girls, respectively.

In the later years of high school these subjects become almost indistinguishable from vocational education, but it is part of the code of the school society to pretend to see differences even if none exist.

It is difficult to characterize these practical arts subjects. Industrial arts, for example, often consists of instruction about processes common in industry two hundred years ago, taught on equipment invented one hundred years ago. This course in industrial history might be relatively effective except that the students usually are told that it represents contemporary industry. In a few schools it really does what it purports to do.

On the other hand, driver education tends to use up-to-date equipment and to teach techniques which are far superior to those commonly used in contemporary practice.

It is perhaps accurate to say that the practical arts share an even greater opportunity for teaching entry job skills than do the other general education subjects. The principal deterrent to effective instruction for entry job skills seems to be the almost universal desire of the teachers not to be classified as vocational teachers. The students do not share this aversion, however. In job applications and in answer to questionnaires, former practical arts students regularly claim that they have had full

vocational training. This leads to results such as the area skills survey which showed an over-supply of draftsmen because the local junior high schools all required a six-weeks course in mechanical drawing.

Vocational Education in the Public Schools

All vocational education curricula specify a combination of general education, laboratory work, and classroom instruction in the theory related to the occupations being learned. A typical schedule calls for 11 years (grades kindergarten to 10) of general education, followed by two years of 2 to 3 hours of laboratory work each day. Some schools begin vocational instruction at grade 9 or 10, and a few begin it at grade 12. Even within a single school, vocational instruction may begin at each of these points, with home economics and agriculture usually beginning instruction at lower grade levels than do other vocational subjects (incidentally, this early start accounts in large part for the apparently heavy enrollment in these two fields).

Nationwide, less than 20% of high school students are in vocational curricula. Many small schools offer only production agriculture and homemaking instead of the wide array of vocational courses needed. It is common for all of the schools in half of the counties in a state to offer no more than these two vocational subjects. Many small schools and some suburban schools offer absolutely no vocational education.

Outside the very large cities, vocational education is offered in the so-called comprehensive high school. ("Comprehensive" usually means that the school offers a college-preparatory program, instruction in one or more vocational subjects, and has a "general curriculum" for students who are rejects from the other two curricula.) Until recently, it was common in the large cities to have separate vocational (trade) schools, technical schools, and

other more or less specialized high schools. Problems of de facto and self-segregation are causing these schools to disappear, though it can be argued that such first-rate vocational schools as Des Moines Technical High School and the Milwaukee Vocational School are the most nearly comprehensive high schools in this Nation. They offer broad programs of general education, and their range of vocational offerings is far greater than can be offered in the "comprehensive" high school which has 1500 students or less. More than ninety percent of our high schools have an enrollment of less than 1500.

While the trend is away from specialized vocational schools in large cities, the trend is temporarily in the opposite direction in rural areas, due to the establishment of area vocational schools. There has been a limited amount of high school consolidation in the past half-century, but the majority of our high schools have an enrollment of less than 500. A fourth of our high school students attend these tiny schools.

It does no good to berate small schools for their very limited vocational offerings. Vocational programs cost about twice as much as college preparatory or general curriculum courses when the vocational classes are full (15-30 students per class). In the small high school, a broad range of vocational classes would result in enrollments of from one to five students per class. This could easily push costs to ten times the cost of college preparatory classes.

One answer, of course, is further consolidation, with a goal of a minimum high school size of 1500 to 2000. Some states are moving in this direction with the push coming from legislatures who are concerned with cost-benefit ratios. In a few places, rural citizens are demanding consolidation for the same reasons. Unfortunately, however, rural high school enrollments are

declining and this removes a substantial spur to consolidation: why build a new school when the old ones hold all of the pupils?

In an effort to improve vocational offerings in rural settings, many states have chosen to use Federal funds to establish "area" vocational schools. This type of school often serves ten or more school districts in one or more counties. Students are transported to spend half of each day in the area vocational school. They are counted (for state aid purposes) as being residents of their home high school, where they are also eligible for varsity sports. In theory, students get their general education courses in the home high school, but for non-athletes, the trend is to put more and more of the general education courses in the area vocational schools. This saves markedly on student transportation costs. It also creates problems of social segregation and reduces the proportion of able students who enroll in vocational education.

The area vocational school is at best a transitional step toward a large rural comprehensive school. In sparsely populated areas of the country, such a large comprehensive high school must provide residential facilities for students.

Specialization in Vocational Offerings

It is common to hear vocational programs being criticized for narrow specialization: "Why should schools prepare students for a single occupation when the occupational world is shifting rapidly?" This is a straw man. In point of fact, no public school vocational program prepares a student for a single occupation, and, indeed the trend has gone so far toward breadth that in some schools vocational education is more like general education than are many "general education" courses such as calculus, sixth year French, and journalism.

"Machine shop" should more accurately be named "metals trades" if you look at the actual course content, but even if its name were accurate, it would still prepare for entrance into more than 200 occupations as defined in the Dictionary of Occupational Titles. Very nearly this same comment would apply to such courses as printing (really graphic arts), automotive mechanics, electronics, building trades, and most other Trade and Industrial Education courses. Business education and distributive education are similarly broad. Production agriculture provides entry level skills for at least fifty occupations. Homemaking and the various health occupations programs probably come closest to preparing the student for a narrow range of occupations, but even here the skills learned have applicability in many other occupations.

Too great specificity is not the major difficulty in vocational education content. Rather, the major difficulty is in its failure to cover significant areas of employment. The service occupations, unskilled and semi-skilled occupations, occupations employing large proportions of women, and white-collar sub professional occupations are significantly under-represented.

There is an interesting conflict between our desire to prepare our students for a wide range of employment, and our principal evaluative measure --"proportion of students employed within three months in the occupation for which trained." A school will get highest short-term placement records with a program which:

a. Prepares for employment in a particular establishment

b. Concentrates on a particular set of skills needed for employment at that moment in time.

c. Carefully shields the student from a view of occupations other

than the one for which he is being prepared.

d. Emphasizes only the desirable aspects of employment in that occupation.

e. Carefully rejects all students who would not be enthusiastically received by employers and labor organizations.

f. Encourages students not to enter higher education

g. Encourages the student to continue in the field originally chosen, even if he later finds he is not capable or interested in it.

Such a program would be extremely narrow, and would be rejected immediately by any high school vocational teacher. Yet this is the program which should be followed to get high initial placement rates.

It is, of course, true that poor placement records can be caused by instruction of such poor quality that it makes the student less employable, or by inadequate selection and placement of students. But it is undeniably true that breadth of vocational education usually is incompatible with short-term placement evaluation.

Several of the undesirably narrow criteria stated above are implicit in Federal vocational education legislation prior to the Vocational Education Act of 1963, and became rather explicit in guidelines issued by the USOE until about 1950. They took the form of insistance on local occupational analysis for determination of course content, emphasis on occupations requiring instruction of 2000 hours or more (presumably for the average student), emphasis on selection of students who had the ability to profit from the instruction offered, an emphasis on youth organizations which were tied to a particular occupational field (these organizations have provided excellent general education, but they tend to avoid occupational orientation outside the interests of their sponsors).

Gradually between 1917 and 1963, and much more rapidly after 1963, there has been progress toward providing the vocational education which each student needs, and a move away from meeting the short-term needs of employers. This is perhaps best illustrated by the shift away from the phrase in the 1917 Smith-Hughes Act which called for selection of only those students who could profit from the instruction being offered by the school. In 1946 Congress permitted short-term periods of instruction for youth in school, thus partially opening the door for serving an additional part of the school population, (though most states frowned on this as sub-standard vocational education). In the Vocational Education Act of 1963, Congress demanded instruction which meets the needs of students who had not been served previously.

Certain individual teachers and schools ignored the early USOE guidelines and served wide varieties of pupils, but they did it at their peril until Congress came to their support. The penalty was two-fold: loss of Federal funds and exclusion from professional meetings and in-service training conducted by the USOE and by State Boards of Vocational Education.

Methods of Instruction

The high school vocational education student typically spends two to three hours per day in laboratory work. In most cases this work is conducted within the school, where he is introduced to the methods and materials most frequently used in the occupations for which he is preparing. Ideally there is a close relationship between this laboratory work and the theory he must also learn.

Undoubtedly the most visible characteristic which distinguishes the vocational laboratory from the typical classroom is the freedom which students

have. Many different tasks are underway simultaneously, with students moving from one task to another. The instructor is a troubleshooter who tells by sight, sound and sometimes by smell where he is most needed.

The scene is usually representative of the type of establishment for which the student is being prepared. One major difference is that relatively little product is in evidence, for schools have never been successful in disposing of the goods or services they produce as a byproduct of instruction. Generally they can produce for the benefit of the school, the faculty, the student body, and for charity, but no general sale of goods or services is possible. This leads to widespread use of exercise or sample products which become scrap, and consequently do not have the motivational value of real products. On the other hand, the print shop which must turn out the school newspaper every week, or the auto shop which must work on faculty automobiles in the order in which they are received, or the home economics class which must operate the school cafeteria, has difficulty in planning an efficient instructional sequence. Indeed, given the choice between rigid production schedules or planned instruction on simulated tasks, almost all instructors will choose the latter. Few programs have worked out the most desirable combination of the two.

Work-Education Programs

If the student can learn while being gainfully employed, four advantages may accrue: the expense of maintaining a reasonably up-to-date school laboratory is mimized, problems of disposal of student-produced goods or services are eliminated, the student earns money which helps to keep him in school, and most important, the student knows that what he is learning is important in the world outside the school.

The simplest plan releases the student from school on a part-time basis, and allows him to find his own job, with little or no help from the school before or during employment. Too often, a job is chosen on the basis of pay, rather than on the amount which will be learned. School credit may be given for this work, but usually it is not. Although this plan goes under various names, here it will be called work experience. The number of students involved in such programs is unknown, though it is surely above 100,000 and may reach 500,000 or more if seasonal work is included

At the other extreme, in a program known as "part-time cooperative education", the school helps the student find an appropriate job, supervises his work to ensure he is really learning, offers individualized in-school instruction in the theory of what is being learned on-the-job, and even teaches the on-the-job trainer how to teach. Typically the student takes two academic classes, a class in the theory and knowledge required for the occupation in which he is working, and he spends the other half-day on the job. At least 200,000 high school students are involved in these part-time cooperative programs, and the number has increased rather steadily since it was introduced in the South in the 1930's. This program has a variety of names, including "concurrent work-education", "distributive education", "office occupations", "industrial cooperative", and "diversified occupations". The key to its success is the teacher-coordinator.

All work-study programs are affected by the general level of unemployment, by seniority agreements, and in small towns, by the unavailability of training stations covering a large variety of occupations. Almost always, more students apply for the programs than the school is willing to accept, so some screening is done. For part-time cooperative education, the more

employable students are generally accepted, but work-experience students are sometimes selected from among those who are causing the school the greatest problems.

Unfortunately, many people confuse the part-time cooperative education program with "work-study". This latter term, as used by the Congress, means a subsidy for employment of needy vocational education students by public agencies (usually schools). This plan does provide income for the student, but the work he is doing is rarely related to his occupational goals. Thus, one of the principal advantages of work-education is lost, simply because certain occupations are seldom found in public employment.

Statistics are not available on work-experience programs, but part-time cooperative students have the best placement records, job satisfaction, and job stability of all vocational graduates. Some of this is no doubt due to "skimming", but at least one state (Illinois) now has 83 part-time cooperative programs for youth who would not have been well served by regular vocational programs.

Relationships with the Community

The literature of the field and several pieces of Federal legislation emphasize the desirability or necessity of establishing advisory committees representing employers, employees and the general public. Their purpose is to offer advice on new programs, content of existing programs, and discontinuance of old programs. In practice they often are not established, or if established, seldom meet. This is not entirely the fault of vocational educators, for school boards must approve advisory committees, and they often feel that they (the school boards) adequately represent the community.

Advisory committees are much more active when there is a shortage of employees than when there is a surplus. In the former case, both employer and employee groups are interested in the contribution vocational education can make to easing the shortage. But in times of labor surplus, both groups are likely to urge that vocational education be curtailed or eliminated. Vocational educators, on the other hand, are interested in serving the students who are present regardless of the state of the labor market, and, of course, these instructors are interested in protecting their jobs. For all of these reasons and more, advisory committee meetings are seldom called.

Obsolescence

Vocational education is frequently charged with teaching obsolete content. Undoubtedly this is true, but it is far less true and somewhat less important than many observers realize.

Basic processes can be taught on remarkably old equipment and still be efficient. The metal lathe reached substantially its present form about 1840. Teaching the basic processes of metal removal on a 1925 lathe may be quite satisfactory, though it looks quite obsolete. And, since students rarely get beyond basic skills in the 1000 hours or so of laboratory instruction they receive, obsolescence of this type is much more apparent than real. An American Institute for Research report, "Vocational Education--Process and Product," found that vocational education students were able to adapt from instructional equipment to production equipment in employment in a very short time.

A second type of obsolescence likewise is less important than is frequently assumed. So long as we prepare such a small proportion of our workers by means of vocational education, it does not do too much harm to

prepare them for certain static or even declining occupations. Very few occupations actually die, and so long as the student knows what he is getting into, and is willing to travel to get a job, there is no occupation for which vocational education is training too many job entrants (and this definitely includes production agriculture). Whether or not one gets the best return on his investment with present patterns of enrollment and instruction is still a proper and important question, but it needs to be stated that vocational education is not training too many people for any occupation.

On the other hand, there are very serious problems with obsolescence of the type which is caused by the instructor. Teacher tenure and uniform salary schedules tend to reward equally the obsolete and the up-to-date instructor. An instructor can keep up to date only by keeping in close contact with his occupational field through reading and actual experience, and he has too few incentives to do so. The obsolete instructor teaches about methods and materials which are no longer in use. He usually is not acceptable to employers in his occupation, so he is not invited to work during the summer, which leads to more obsolescence. But equally bad, his reputation frequently is such that local employers don't want his students because they are likely to share many of their teacher's failings. Until 1966, almost no Federal funds were available for training and updating vocational instructors, and even now, training is almost entirely restricted to short courses averaging four weeks in length.

A fourth type of obsolescence is nearly as bad as that caused by the obsolete instructor. Failure to offer instruction in new and rapidly growing fields of employment is frustrating to students and employers alike. Here again, teacher tenure enters in. Private vocational schools do not have

teacher tenure, so they can get into and out of an instructional field rapidly. The public schools, however, are very conservative. In part this is because they know they will suffer through having surplus teachers on hand if demand for instruction does not continue.

The part-time cooperative program manages to avoid almost all of the above problems of obsolescence.

Placement Programs in the School

Another important method of avoiding obsolescence is to have a placement service within the school. Every research study which has examined this question is in agreement that those schools which have a placement service have far better vocational education programs than those schools who do not have a placement service or depend on one which is separated physically from the school. Significant differences are found, not only in placement records, but in teacher competence, quality of instructional materials and equipment, job satisfaction, and job stability.

This relationship may not be due to simple cause and effect. A wealthy school may be able to afford both a placement service and high quality instructors. Nevertheless, when wealth is held constant, the school with placement service excels. The most logical reason for this is feedback. A placement officer in daily contact with teachers, counselors, and administrators can tell them of their joint successes and failures. At the same time, teachers can provide the placement officer with specific information about the strengths and weaknesses of students who are to be placed.

In the part-time cooperative education program, the school serves an initial placement role, not only securing a suitable position for the student,

but observing him on the job, and tailoring one class per day to meet his needs. The data above, while confined to placement after an in-school vocational training program, suggest that at least part of the remarkable success of the part-time cooperative program may be due to its placement and feedback components.

Curriculum Materials for Vocational Education

Another means of avoiding obsolescence is to insure that adequate and up-to-date instructional materials are provided for vocational education. While considerable progress has been made, many vocational classes have no texts and a few reference materials. Syllabi are constructed by each school district, and often by each teacher. Twelve states make some effort to collect and disseminate materials, but often they cannot sell outside the state border, and spend a considerable amount of effort in duplicating each other's efforts. The USOE has prepared course outlines for several fields, but many of these have not been published due to a shortage of Federal funds. Commercial publishers are not interested because the copyright is in the public domain.

In the few curriculum guides which have been prepared and distributed, the primary orientation is toward the needs of the employer and the job, rather than toward the needs of the student. Little use has been made of such curriculum development tools as the taxonomies of educational objectives. Evaluation materials are conspicuously lacking except in one state.

This uncoordinated, and largely unfunded process is in marked contrast to the sizeable amounts spent on developing curriculum materials for other school subjects, especially the physical sciences.

What Happens to the Student as a Result of High School Level Vocational Education?

This is the largest unanswered question in the field. Data are amazingly lacking. In a few months we will know for the first time how many students are completing public high school vocational education programs and we will have a list of schools offering vocational education programs. Believe it or not, we have never had this information.

Sample studies have, however, given us some relatively sound information:

a. Over 20% of vocational education graduates go on to post-secondary school education.

b. Less than 5% are unemployed (compared to 12% or more of their age group)

c. Of those in the labor force, between 60 and 80% are placed on jobs in the field for which trained or in related fields. In the part-time coop program, this figure approaches 90%. These figures are higher than for college programs in law and engineering, and are also far higher than the proportion of graduates of the high school college preparatory program who go on to college.

d. Vocational graduates get jobs faster, are better satisfied with their jobs, and keep jobs longer than comparable graduates of other high school programs. All of these differences are significant, but not large.

e. High school vocational education costs about $150 per trainee per year in Federal funds and less than $1,200 per trainee per year in toto. These costs are markedly less than for other occupational programs (indeed they are lower than they ought to be for maximum quality).

Why Are So Few School Activities Related to the Transition from School to Employment?

There are two basic reasons why the schools have not attacked in substantial fashion the problems of transition from work to employment:

a. Most importantly, society has never demanded it. The public schools in the United States are much affected by the pressures exerted by society, but no substantial group has been concerned about promoting a school activity which has been seen from the outside as being of little importance. On the other hand, the public has demanded strong programs of college preparation and that is what they are getting.

b. Within Education, theorists have almost uniformly called for unity of programs, with emphasis on general education (education which is needed by all students). Vocational education is seen as a divisive force which causes students to make early occupational choices, which is apt to decrease the amount of time available for general education, and which, because of early choice, is likely to cause the student to neglect some phases of general education. These theorists also see over-specialized programs of college preparation as divisive.

As youth unemployment rates continue to climb, society is beginning to ask the schools for action, and increasingly they are getting it. And, the educational theorists are beginning to re-examine their position. They recognize employment as desirable, and, in several senses, necessary. As general requirements for employment climb, the compatability between these requirements and general education increases. Moreover, many of these theorists are

pragmatists at heart, and rising youth unemployment is a signal that something is wrong. This leads to a call for development of a logical rationale for the relationship of occupational and general education. High priority should be given to funding projects for developing such a rationale, for it would help markedly both to improve the quality of occupational education, and to convince the theorists that occupational education is desirable.

Abstract

For a large portion of its student body, the school makes no conscious effort to prepare for the transition from school to employment. Instead, the school concentrates on preparing students for more school.

About 20% of high school students receive some form of vocational education, but under pressure from the congress, schools are beginning to recognize that they should meet the needs of a higher proportion of their students.

Vocational education is devoting more attention now than formerly to the needs of the student and is placing less emphasis on meeting the narrow needs of the labor market. This shift also is in accord with legislative trends.

Vocational education is criticized for being too narrow and specialized, but this is rarely true. However, the principal method of evaluation of vocational education (immediate job placement) places a premium on specialization. As evaluation is increasingly emphasized, it is likely to force more specialization than now exists. The major weakness of vocational education content lies in its exclusion of many important occupations.

Four types of obsolescence of vocational education are discussed, some of which are much more serious than others. The part-time cooperative method of instruction, broadened teacher education, in-school employment offices, and better instructional materials are recommended as means of minimizing obsolescence.

Serious absences of data are noted, and certain commonly reported results of research on vocational education are noted.